

**REMARKS**

Claims 1-13 are pending in the present application.

Claims 1-13 have been rejected.

Claim 10 has been amended.

Reconsideration of the claims is respectfully requested.

**I. CLAIM REJECTIONS -- 35 U.S.C. § 112**

The January 15, 2008 Office Action rejected Claims 10-12 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term "receiving" in Line 6 of Claim 10 was said to lack antecedent basis. In response, the Applicants have amended Claim 10 to remove the term "receiving" and to add the term "sensing." The Applicants respectfully submit that this amendment removes any indefiniteness in the claims.

## II. CLAIM REJECTIONS -- 35 U.S.C. § 103

The January 15, 2008 Office Action rejected Claims 1-13 under 35 U.S.C. § 103(a) as follows.

(1) Claims 1, 3-8 and 10-12 were rejected as being obvious over United States Patent Application Publication No. 2004/0045787 to Thomas Zimmerman (“*Zimmerman*”) in view of United States Patent No. 4,371,783 to Grimmell et al. (“*Grimmell*”).

(2) Claim 2 was rejected as being obvious over *Zimmerman* in view of *Grimmell* and further in view of United States Patent No. 5,755,618 to Ewald Mothwurf (“*Mothwurf*”).

(3) Claim 9 was rejected as being obvious over *Zimmerman* in view of *Grimmell* and further in view of United States Patent No. 4,746,319 to Zwieg et al. (“*Zwieg*”).

(4) Claim 13 was rejected as being obvious over by United States Patent No. 6,371,845 to Ishida et al. (“*Ishida*”) in view of *Zimmerman*.

The Applicants respectfully traverse these rejections.

During *ex parte* examinations of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. MPEP § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 USPQ2d 1780, 1783 (Fed. Cir. 1992). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of non-obviousness. MPEP § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d

1443, 1444 (Fed. Cir. 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 USPQ 870, 873 (Fed. Cir. 1985).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not be based on an applicant's disclosure. MPEP § 2142.

Claims 1, 3-8 and 10-12 were rejected as being obvious over *Zimmerman* in view of *Grimmell*. The *Zimmerman* reference discloses a coin presence sensor 5 on one side of a coin receptacle 2. The *Zimmerman* reference teaches the use of a sensor 11 that comprises a light transmitting device and a light receiving device. In the *Zimmerman* sensor device 11 the light is supposed to be reflected from a coin 3 in the receptacle. The *Zimmerman* apparatus does not provide any means (such as a mask and access port) for preventing the light receiving device in

sensor 11 from exposure to light from the light transmitting device in sensor 11. Therefore, the sensor 11 would always “sense” that there is a coin 3 in the receptacle whether a coin 3 was actually present or not. In short, the *Zimmerman* device shown in Figure 6 is not operable to achieve its stated goal. The inventor (Thomas Zimmerman) seems to be completely unaware that this problem even exists in this particular embodiment of the *Zimmerman* device.

The January 15, 2008 Office Action suggested that the deficiencies of the *Zimmerman* reference could be remedied incorporating the mask 2 of the *Grimmell* reference into the sensor 11 of the *Zimmerman* reference and that it would have been obvious to one of ordinary skill in the art to do so. (January 15, 2008 Office Action, Page 3, Line 21 to Page 4, Line 3). The Applicants respectfully traverse these assertions.

There is no suggestion in the *Zimmerman* reference that the sensor 11 of *Zimmerman* is not operable. Therefore, there would have been no reason to assume that any additional structure would be required to make the *Zimmerman* sensor 11 operable. In particular, there would have been no obvious reason to assume it would be advantageous to use a mask of the type that is disclosed in the *Grimmell* reference.

The Applicants assert that the *Zimmerman* sensor 11 short circuits the light between the transmitter and the receiver. The Examiner stated that the configuration of the *Zimmerman* sensor “potentially exposes a particular light receiving device to unwanted sensor or ambient light which may distort the coin sensing signal of the apparatus disclosed by Zimmerman.” (January 15, 2008 Office Action, Page 6, Lines 13-15).

The Applicants further assert that there is no mask that is inherent in the *Zimmerman* reference. There has been no showing of inherency of a mask in the *Zimmerman* reference. The Applicants further assert that even if the *Grimmell* reference teaches the use of a mask, there is no motivation to add the mask of the *Grimmell* reference to the *Zimmerman* reference. This is because there is no suggestion in the *Zimmerman* reference that a mask is needed. In order for a person who is skilled in the art to seek out the *Grimmell* reference and its teaching of a mask, the person who is skilled in the art would first have to realize that the *Zimmerman* device is not operable. The *Zimmerman* reference does not teach or suggest that the *Zimmerman* device is not operable. Therefore, a person who is skilled in the art who is in possession of the *Grimmell* reference would not be motivated to add the mask of the *Grimmell* reference to the *Zimmerman* device because the *Zimmerman* reference does not indicate that there is a problem.

The Applicants respectfully submit that the concept of needing to use such a mask in the *Zimmerman* sensor 11 is not suggested by the prior art but comes from the Applicants' disclosure. Evidence of a motivation to combine prior art references must be clear and particular if the trap of "hindsight" is to be avoided. *In re Dembiczak*, 175 F.3d 994, 50 USPQ2d 1614 (Fed. Cir. 1999) (Evidence of a suggestion, teaching or motivation to combine prior art references must be "clear and particular." "Broad conclusory statements regarding the teaching of multiple references, standing alone, are not 'evidence.'"). *In re Roufett*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457 (Fed.Cir. 1998) ("[R]ejecting patents solely by finding prior art corollaries for the claimed elements would permit an examiner to use the claimed invention itself as a blueprint for piecing together elements in the prior art to defeat the patentability of the

claimed invention. Such an approach would be ‘an illogical and inappropriate process by which to determine patentability.’”)

The claims as a whole must be considered. The claims must not be dismantled and considered on the basis of individual features. It is well settled that “the actual determination of the issue requires an evaluation in the light of the findings in those inquiries of the obviousness of the claimed invention as a whole, not merely the differences between the claimed invention and the prior art.” *Graham v. John Deere Co.*, 383 U.S. 17 (1966). “It is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious. This court has previously stated that ‘[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.’ *In re Fitch*, 972 F.2d 1260 (Fed. Cir. 1992).

The Applicants respectfully submit that this type of “hindsight reconstruction” has occurred in the rejections that are set forth in the January 15, 2008 Office Action. The Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the claims of the Applicants’ invention. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicants’ invention in Claims 1, 3-8 and 10-12.

The January 15, 2008 Office Action also rejected Claim 2 as being obvious over *Zimmerman* in view of *Grimmell* and further in view of *Mothwurf*. The Applicants respectfully traverse this rejection of Claim 2. The Applicants incorporate by reference and repeat the statements and arguments previously made with respect to the *Zimmerman* reference and the

*Grimmell* reference. The January 15, 2008 Office Action stated that it would have been obvious to use photodiode transmitters and phototransistor receptors of *Mothwurf*. The *Mothwurf* reference teaches the use of photodiode transmitters and phototransistor receptors to form a “light curtain” that can be interrupted by the presence of a coin or coin-like article 5. (*Mothwurf*, Column 5, Lines 34-41). There is no reflection of light from a coin or coin-like article 5. That is, the light from a *Mothwurf* transmitter is not reflected to a *Mothwurf* receiver.

The *Mothwurf* reference states that the transmitters 623 and the receivers 641 must radiate a wavelength that goes through the separators 6 that hold the coins or coin-like articles 5. The transmitters 623 and the receivers 641 in the *Mothwurf* reference are contained within the separators 6. “A precondition for the orderly operation of this measurement device is naturally that the separators 6 comprise a material which is permeable for the wavelength radiated from the transmitters 623 and received by the receivers 641.” (*Mothwurf*, Column 5, Lines 18-22).

There is no teaching or suggestion in the *Mothwurf* reference to use photodiode transmitters and phototransistors receptors in the manner used by the Applicants. As previously mentioned, there is no reflection of light from a coin or coin-like article. There is no mask having apertures aligned with the transmitter and receivers to isolate the receivers from exposure to light transmitted light prior to reflection.

The Examiner stated that “It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the photodiode transmitters and phototransistor receptors of *Mothwurf* into the sensor of Zimmerman/Grimmell for the purpose of providing a means of detecting the presence of absence of coins within a receptacle.”

(January 15, 2008 Office Action, Page 4, Lines 10-14). The Applicants respectfully traverse this assertion of the Examiner. The Examiner has not established the level of ordinary skill in the art at the time the invention was made. Therefore, the Examiner has not established a *prima facie* case that it would have been obvious to incorporate the photodiode transmitters and phototransistor receptors of *Mothwurf* into the assumed combination of the *Zimmerman* device and the *Grimmell* device.

The Applicants respectfully submit that the Applicants' invention as claimed in Claim 2 is not obvious in view of the *Zimmerman* reference or the *Grimmell* reference or the *Mothwurf* reference whether taken singly or in combination. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicants' invention in Claim 2.

The January 15, 2008 Office Action also rejected Claim 9 as being obvious over *Zimmerman* in view of *Grimmell* and further in view of *Zwieg*. The Applicants respectfully traverse this rejection of Claim 9. The Applicants incorporate by reference and repeat the statements and arguments previously made with respect to the *Zimmerman* reference and the *Grimmell* reference. The January 15, 2008 Office Action stated that it would have been obvious to use the different output voltages of *Zwieg*. There is no teaching or suggestion in the *Zwieg* reference to use such high and low output voltages in the manner used by the Applicants.

The Examiner stated that "It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the first and second signals of *Zwieg* into the apparatus of *Zimmerman*/*Grimmell* for the purpose of providing a basis for detecting the



presence of a coin.” (January 15, 2008 Office Action, Page 5, Lines 1-4). The Applicants respectfully traverse this assertion of the Examiner. The Examiner has not established the level of ordinary skill in the art at the time the invention was made. Therefore, the Examiner has not established a *prima facie* case that it would have been obvious to incorporate the first and second signals of *Zwieg* into the assumed combination of the *Zimmerman* device and the *Grimmell* device.

The Applicants respectfully submit that the Applicants’ invention as claimed in Claim 9 is not obvious in view of the *Zimmerman* reference or the *Grimmell* reference or the *Zwieg* reference whether taken singly or in combination. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicants’ invention in Claim 9.

The January 15, 2008 Office Action also rejected Claim 13 as being obvious over *Ishida* in view of *Zimmerman*. The Applicants respectfully traverse this rejection of Claim 13. The Applicants incorporate by reference and repeat the statements and arguments previously made with respect to the *Zimmerman* reference. The January 15, 2008 Office Action stated that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the receptacle/sensor configuration of *Zimmerman* into the coin dispensing apparatus of *Ishida* for the purpose of maintaining a registry of coins within said apparatus.” (January 15, 2008 Office Action, Page 5, Line 21 to Page 6, Line 3). The Applicants respectfully traverse this assertion of the Examiner. The Examiner has not established the level of ordinary skill in the art at the time the invention was made. Therefore, the Examiner has not established a

*prima facie* case that it would have been obvious to incorporate the configuration of *Zimmerman* into the coin dispensing apparatus of *Ishida*.

The Applicants respectfully submit that the Applicants' invention as claimed in Claim 13 is not obvious in view of the *Ishida* reference or the *Zimmerman* reference whether taken singly or in combination. In particular, the Applicants respectfully submit that the Patent Office has not established a *prima facie* case of obviousness with respect to the Applicants' invention in Claim 13.

In view of the amendments to the claims and the arguments set forth above, the Applicants respectfully request the Examiner to withdraw all of the § 103 rejections with respect to Claims 1-13, as amended.

SUMMARY


If any issues arise, or if the Examiner has any suggestions for expediting allowance of this Application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@munckbutrus.com*.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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